

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Appl. No. : 10/084,856
Applicant : Douglas U. Mennie et al.
Filed : February 27, 2002
Title : Automatic Funds Processing System
TC/A.U. : 3694
Examiner : Jamie H. Swartz
Docket No. : 247171-000373USD1

Customer No. : 41230

REQUEST FOR REHEARING

Mail Stop Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Dear Commissioner:

This Request for Rehearing is being filed responsive to the Decision on Appeal (the “Decision”) mailed December 28, 2009, for which the deadline for response was February 28, 2010 (Sunday). This Request for Rehearing is being timely filed on Monday, March 01, 2010.

REMARKS

1. THE 35 U.S.C. § 103 REJECTION

In the Decision, this Honorable Board stated that it disagreed with Appellant’s contention that “Smith and Avnet fail to describe singulating the bulk coins using a coin separation device, as required by limitation [2] of claim 258.” (page 13, lines 1-4; *citing* App. Br. 18-19 and Reply Br. 19).

This Honorable Board cited Smith as disclosing “dispensing machine that includes a coin acceptor” (Decision, page 13, lines 4-5; *citing* Findings of Fact (“FF”) 05), wherein “[t]he coin acceptor receives coins input by a customer” (*Id.* at lines 5-6; *citing* FF 05) and “further determines the validity and value of each coin” (*Id.* at lines 6-7; *citing* FF 05).

From the above-cited findings of fact, this Honorable Board correctly notes that “the coin acceptor must examine each coin individually” and that “[t]he coins can further be separated based on whether a coin is valid or not” (*Id.* at lines 7-12).

This Honorable Board then went on to conclude that “[t]he Appellants contention that Avnet fails to describe this limitation is not found persuasive since the Examiner has relied on Smith to describe this limitation” (Decision, page 13, lines 16-18).

**A. NEITHER EXAMINER’S REJECTION NOR THE BOARD’S DECISION ON APPEAL
SUPPORTS FINDING THAT THE APPLIED REFERENCES DISCLOSE OR SUGGEST
“SINGULATING THE BULK COINS USING A COIN SEPARATION DEVICE”**

Appellants again emphasize that Smith does *not* disclose or suggest, as alleged by the Examiner, “a coin separation device (col. 5, line 30 – col. 10, line 55)” (*see* Final Office Action, page 5).

As noted by this Honorable Board, Smith does include “a coin acceptor” (Decision, page 13, lines 4-5; *citing* FF 05). Appellants agree that Smith discloses a coin acceptor 35 (see FIG. 1). However, as set forth in the Appeal Brief, the customer of the Smith vending machine himself or herself separates the coins and places them, *one at a time*, in slot 35, as with a conventional vending machine. The vending machine of Smith itself neither discloses nor suggests any act of “singulating the bulk coins *using a coin separation device*” (emphasis

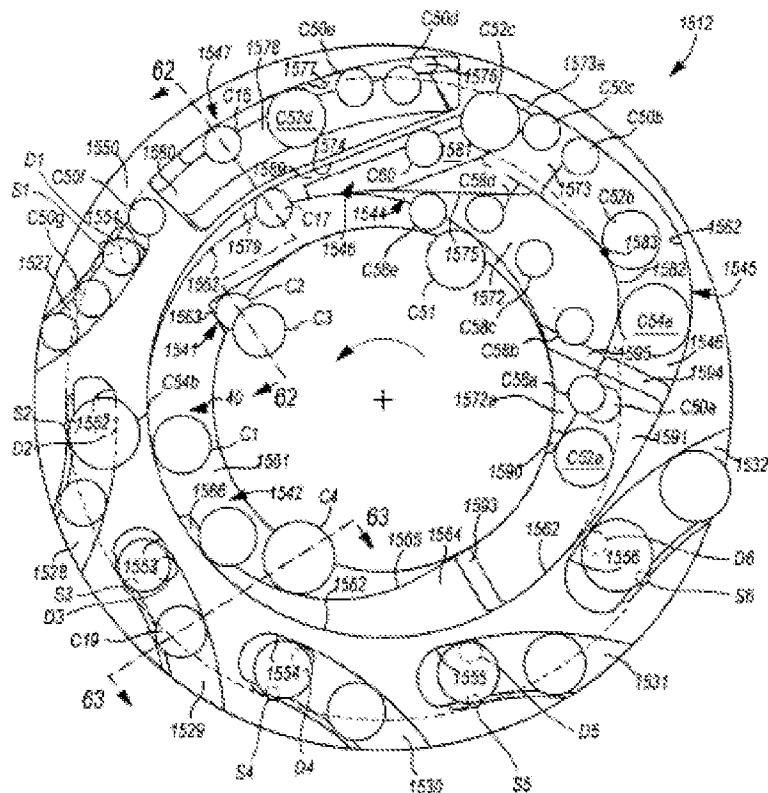
added), nor does Smith disclose or suggest any device capable of performing singulation of bulk coins.

As also recognized by this Honorable Board, the Martin et al. reference (U.S. Pat. No. 5,988,348) describes the usage of the term “singulating” to mean “to make single and not commingled with other coins” (Decision, page 10, lines 20-24; *citing* Reply Br. 15). The use of such term(s) or related terms in the claims are intended to be used in the same context as that which would be understood by one of ordinary skill in the art. In other words, as previously argued, the limitation of “singulating the bulk coins *using a coin separation device*” (emphasis added) to relate to the structure and acts disclosed by Appellants’ specification in, for example, ¶¶ [0416]-[0429] and FIGS. 58-61 corresponding thereto, where the coins singulated *using a coin separation device* wherein the coins are manipulated by the rotation of the resilient disc (*see, e.g.,* 1513; FIGS. 60-61) to form a single-file stream of coins directed against the outer wall 1562.

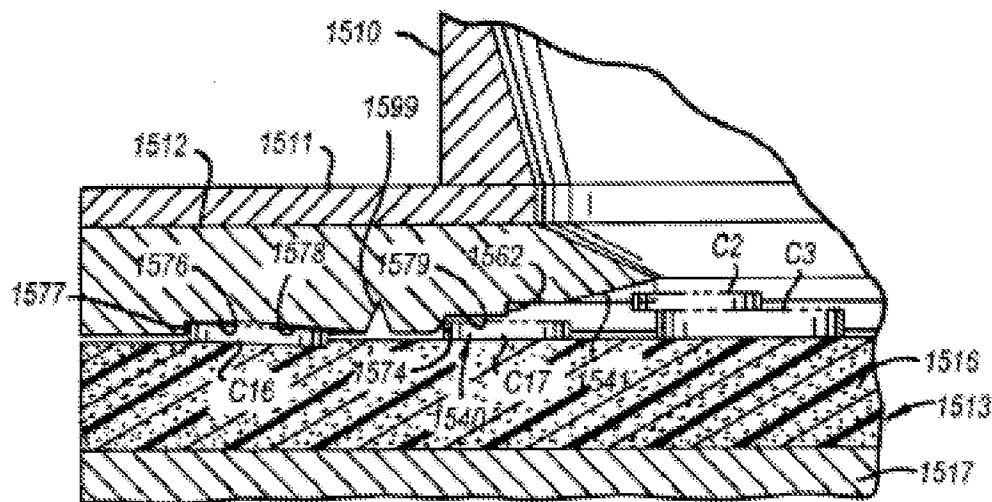
In contrast with the structure of Smith, which requires the customer of the Smith vending machine to himself or herself separate the coins and places them, *one at a time*, in slot 35, as with a conventional vending machines, the disclosed and claimed coin separation device that is used to singulate bulk coins is disclosed, for example, in ¶ [0418] of Appellant’s specification. As described therein, as the disc 1513 is rotated, the coins 1525 deposited on the top surface thereof (*i.e.,* via the hopper) “tend to slide outwardly over the surface of the pad due to centrifugal force”. As can be seen in FIG. 58, a hopper 1510 receives coins of mixed denominations and feeds them through central openings in a housing 1511 and a coin-guiding member in the form of an annular sorting head or guide plate 1512 inside or underneath the housing (*see* ¶ [0416] of Appellant’s specification). This disclosure is also related to the Board’s Finding of Fact 01, wherein the Board determined that “[a] hopper receives coins of mixed

denominations and feeds them through central openings in a housing and coin guiding member in the form of an annular sorting head or guide plate inside or underneath the housing” FF 01.

Paragraph [0418] of Appellant’s specification also discloses that “[a]s the coins move outwardly, those coins which are lying flat on the pad enter the gap between the pad surface and the guide plate 1512 because the underside of the inner periphery of this plate is spaced above the pad 16 by a distance which is about the same as the thickness of the thickest coin”. As is further disclosed in ¶ [0418] of Appellant’s specification, the coins are sorted into their respective denominations, and the coins for each denomination issue from a respective exit slot, such as the slots 1527, 1528, 1529, 1530, 1531 and 1532 (see FIGS. 58 and 59). Paragraph [0420] of Appellant’s specification shows, with reference to FIG. 59, a bottom view of a sorting head 1512 including channels and other means configured to singulate coins at high speed.



Paragraph [0421] of Appellant’s specification discloses that outwardly moving coins initially enter under a semi-annular region underneath a planar surface 1561 formed in the underside of the guide plate or sorting head 1512 and that “[f]ree radial movement of the coins within the entrance region 1540 is terminated when they engage a wall 1562, though the coins continue to move circumferentially along the wall 1562 by the rotational movement of the pad 1516, as indicated by the central arrow in the counterclockwise direction in FIG. 59”. To prevent the entrance region 1540 from becoming blocked by “shingled” coins (i.e., coins wholly or partially on top of another coin), the planar region 1561 is provided with an inclined surface 1541 forming a wall or step 1563 for engaging the uppermost coin in a shingled pair. *Id.* FIG. 59 shows, for example, an upper coin C2 shingled over a lower coin C3 (see, near center of FIG. 59 at about 10:00 position). As further shown in FIG. 60, movement of the upper coin C2 is limited by the wall 1563 so that the upper coin C2 is forced off of the lower coin C3 as the lower coin is moved by the rotating disc 1513. *Id.*



Paragraph [0423] discloses, for example, that “[t]he first means 1545 for referencing the coins *obtains a single-file stream of coins* directed against the outer wall 1562 and leading up to

a ramp 1573.” (emphasis added)(*see* first referencing means 1545 in FIG. 59, toward outside of sorting head 1512, between about 2:00 and 3:00 position). Thus, the disclosed coin separation device itself is configured to *cause* “singulating the bulk coins”.

As previously noted by Appellants, Smith *does not* disclose or suggest any structure capable of performing singulation of the bulk coins and it is, instead, the *customer* of the vending machine that himself or herself separates the coins and places them, *one at a time*, in slot 35 (*see, e.g.,* middle of FIG. 1 of Smith, reproduced below for convenience).

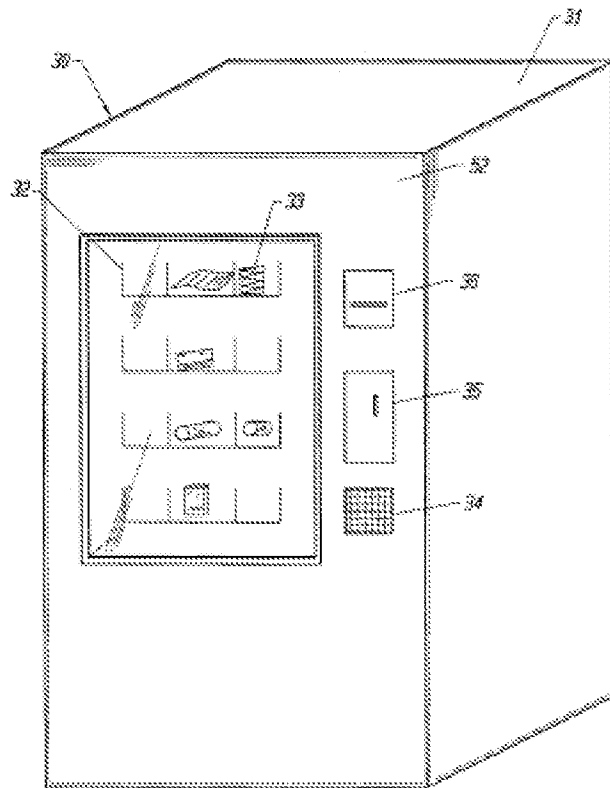


FIG. 1

Avnet is unable to make up for this deficiency and discloses, regarding coins, that “[t]ypically, a vending machine accepts payment in the form of coins and paper currency” but that “with the advent of cash cards, vending machines also accept payment in the form of a cash

card debit.” (see col. 1, lines 30-33). Avnet discloses that an “object of the invention is to provide a standardized cash card dispensing apparatus configuration in which different electronic components may be incorporated, e.g., for issuing data cards, revaluing or debiting cards, and for accepting different forms of payment, i.e., coins, dollar bills or credit cards.” (col. 1, line 66 to col. 2, line 3). Avnet, however, discloses only conventional vending machine coin acceptors, such as the MARS Electronics MC5 coin acceptor disclosed by Smith. Avnet, like Smith, does ***not*** disclose or suggest any structure capable of performing singulation of the bulk coins and instead appears only to disclose that the ***customer*** of the vending machine that himself or herself separates the coins and places them, *one at a time*, in a slot (not shown in Avnet).

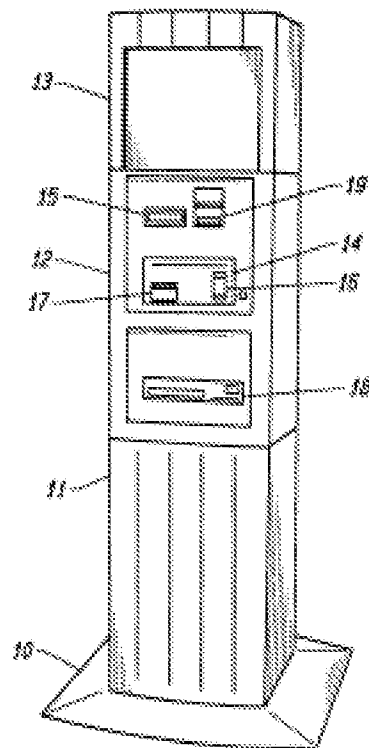


FIG. 1

Avnet fails to illustrate any embodiment comprising a coin acceptor. Instead, FIG. 1 (above) shows, for user payment options, a currency acceptor 16 and a plastic bank card acceptor 17.

Thus, Smith and Avnet, whether taken singly or in combination, cannot reasonably be said to disclose or suggest the act of “singulating the bulk coins *using a coin separation device*,” as claimed (emphasis added).

**B. CLAIM INTERPRETATION OF “BULK COIN RECEPTACLE” BY THIS HONORABLE
IS RESPECTFULLY SUBMITTED TO BE INCONSISTENT AND IMPROPER**

A claim term is generally given its “ordinary and customary meaning,” which is “the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005) (en banc). “[T]he court looks to ‘those sources available to the public that show what a person of skill in the art would have understood disputed claim language to mean,’ . . . includ[ing] ‘the words of the claims themselves, the remainder of the specification, the prosecution history, and extrinsic evidence concerning relevant scientific principles, the meaning of technical terms, and the state of the art.’” *Id.* at 1314 (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1116 (Fed. Cir. 2004)).

Further, the Federal Circuit stated in *Phillips* that “claims ‘must be read in view of the specification, of which they are a part.’” *Phillips*, 415 F.3d at 1315 (quoting *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995) (en banc), *aff’d*, 517 U.S. 370 (1996)). “[T]he specification ‘is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.’” *Id.* (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)).

Limitation [1] of claim 258 cites:

receiving money input by said customer, said act of receiving money input by said customer comprising substantially simultaneously receiving, in a bulk coin receptacle, randomly oriented bulk coins input by said customer

This Honorable Board took the position that “[l]imitation [1] requires receiving money, input substantially simultaneously by a customer, in a bulk coin receptacle, where the coins are randomly oriented” (Decision, page 13, line 24 to page 14, line 1).

This Honorable Board continued on to state that “Smith describes a coin acceptor that receives customer input coins and determines the validity and value of each coin” (Decision, page 14, lines 1-2)(*citing* FF 05) and that “Smith further contemplates that the coin acceptor can accept a plurality of coins, such as an amount equal to pocket change” (Decision, page 14, lines 3-4)(*citing* FF 05).

This Honorable Board then took the position that “[u]nder the broadest reasonable interpretation, a bulk coin receptacle can mean a coin acceptor capable of receiving a plurality of coins, such as the number of coins in pocket change.” (Decision, page 14, lines 5-7).

However, earlier in the Decision on Appeal, this Honorable Board properly took the position that “[t]he specification describes that mixed coins are input into a hopper” (Decision, page 9, lines 20-21)(*citing* FF 01) and that “[a] bulk coin receptacle can be any receptacle that can hold a plurality of coins” (Decision, page 9, lines 21-22), noting further that “Figures 58-60 explicitly show that the hopper is capable of holding a plurality of mixed coins and a hopper accepts a plurality of coins” (Decision, page 9, lines 22-24)(*citing* FF 01).

Despite this earlier, correct, interpretation of the claim language “bulk coin receptacle,” this Honorable Board incongruously asserted that under the “broadest reasonable interpretation,”

the coin acceptor 35 (FIG. 1) of Smith could be construed to be “a bulk coin receptacle,” which “can mean *a coin acceptor capable of receiving a plurality of coins*” (Decision, page 14, lines 5-7)(emphasis added). Appellants respectfully submit that this latter assertion is incongruous with and improper in view of this Board’s prior interpretation of the same terminology. The coin acceptor 35 of Smith is ***not*** a “receptacle that can hold a plurality of coins” (*see* Decision, page 9, lines 21-22). As taught by Smith, the coin acceptor 35, for which the “MC5 line of coin changers” conventionally used in vending machines is cited as an example, “is an apparatus which is capable of receiving coins, or coin like tokens, from a dispensing machine customer; processing the coin inputs so as to determine the validity and value of the coins and a total monetary deposit; providing information relating to the coins received to the product or service access mechanism of the machine; and when a sufficient deposit has been made to signal a product dispensing portion of the machine to actuate the service or dispense the product; providing change to the vending machine user, based on its own determination of the change due or based on information from another source such as a vending machine controller.” (col. 10, lines 32-44). The Mars Electronics MC5 coin changer, as understood by one of ordinary skill in the art, as well as even casual users of vending machines, employs a gravity feed coin path where each coin inserted into the coin slot passes one or more sensors to determine whether the coin is a valid coin or an invalid coin (e.g., electronic sensors measure coin diameter, metal content and coin thickness and these measurements are sent to the coin changer microcomputer where they are compared with predetermined coin acceptance criteria). If the coin does not meet the acceptance criteria, the “accept gate” remains closed and the coin is rejected. If the coin fits the criteria, the coin is accepted and the accept gate opens to allow the coin into the separator section, where it is determined whether the vending machine needs to replenish the change tubes

(or not). At this time, the value of the coin is registered and displayed to the customer to indicate an acceptance of the coin. If the vending machine does not need to direct the coin to a “change” tube, then the coin is passed immediately to the cash box for storage. This sequence continues as the customer inputs each individual coin until the vend price for the desired product has been reached.

Returning to the Appellant’s disclosed and claimed “bulk coin receptacle,” Appellant’s disclosed method and apparatus provides a coin separation device that is used to singulate **bulk coins**, such as a large amount of mixed coins. Appellant’s specification describes the “**loading**” of mixed coins (§ [0397])(emphasis added) in relation to the coin transaction in FIG. 56f and step 12a. Following the “**loading**” of mixed coins in step 12a, the coins are then sorted (step 12b), authenticated (step 12c), and bagged (step 12e)(see § [0397]). At step 12j, “the machine determines if sorting is complete . . . by sensing whether there are additional coins to sort in the coin bin” and that “[i]f sorting is not complete, the system continues at step 12b by counting and sorting the next coin.” (see § [0399]). Appellant’s disclosure thus describes a sequence of loading coins, **followed by** the sorting and authentication thereof, utilizing the Appellant’s “hopper” (see, e.g., § [0416]; FIG. 58) and “high-speed” coin sorter (see, e.g., § [0420]).

The **broadest reasonable interpretation**, again, must be “consistent with the specification, [and] claim language should be read in light of the specification as it would be interpreted by one of ordinary skill in the art.” *In re Bond*, 910 F.2d 831, 833 (Fed. Cir. 1990); see also *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005); *In re Wheeler*, Case No. 08-1215, (Fed. Cir., Dec. 19, 2008) (Newman, J.). In view of the specification, particularly in view of the specification as it would be interpreted by one of ordinary skill in the art, the broadest reasonable interpretation of “a bulk coin receptacle” would **not** include a coin acceptor

capable of receiving a plurality of coins, one-at-a-time, such as “pocket change” inserted one-at-a-time by a customer into a vending machine coin acceptor, as was set forth by the Board in the Decision on Appeal (page 14, lines 5-7).

2. CONCLUSION

For the reasons set forth above and for the reasons previously set forth in Appellants’ Appeal Brief and Reply Brief, Appellants respectfully urge this Honorable Board to reconsider the above-noted points in the Decision on Appeal and reverse the Examiner’s 35 U.S.C. § 103 rejection of claims 258-261 and 267-270 in view of Smith and Avent.

No fees are believed due in connection with this submission. However, to the extent that any fees may now be required, the Commissioner is hereby authorized to charge deposit account No. 50-4181 (Attorney Docket No. 247171-000373USD1) for any fees owing in connection with this submission of the Request for Rehearing, except for the issue fee.

Respectfully submitted,

March 1, 2010 (Monday)
Date

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